



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

May 13, 2011

Mr. Larry Meyer  
Site Vice President  
NextEra Energy Point Beach, LLC  
6610 Nuclear Road  
Two Rivers, WI 54241

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 – NRC TEMPORARY  
INSTRUCTION 2515/183, INSPECTION REPORT 05000266/2011-010;  
05000301/2011-010

Dear Mr. Meyer:

On April 19, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Point Beach Nuclear Plant, Units 1 and 2, using Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event." The enclosed inspection report documents the inspection results which were discussed on April 19, 2011, with Mr. J. Costedio and other members of your staff.

The objective of this inspection was to promptly assess the capabilities of Point Beach Nuclear Plant to respond to extraordinary consequences similar to those that have recently occurred at the Japanese Fukushima Daiichi Nuclear Station. The results from this inspection, along with the results from this inspection performed at other operating commercial nuclear plants in the United States, will be used to evaluate the U.S. nuclear industry's readiness to safely respond to similar events. These results will also help the NRC to determine if additional regulatory actions are warranted.

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in the next quarterly report. You are not required to respond to this letter.

L. Meyer

-2-

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Michael A. Kunowski, Chief  
Branch 5  
Division of Reactor Projects

Docket Nos. 50-266; 50-301  
License Nos. DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2011-010; 05000301/2011-010

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-266; 50-301  
License Nos: DPR-24; DPR-27

Report Nos: 05000266/2011-010; 05000301/2011-010

Licensee: NextEra Energy Point Beach, LLC

Facility: Point Beach Nuclear Plant, Units 1 and 2

Location: Two Rivers, WI

Dates: March 23 through April 19, 2011

Inspectors: P. Cardona-Morales, Reactor Engineer  
S. Burton, Senior Resident Inspector  
M. Thorpe-Kavanaugh, Resident Inspector

Approved by: Michael A. Kunowski, Chief  
Branch 5  
Division of Reactor Projects

Enclosure

## **SUMMARY OF FINDINGS**

IR 05000266/2011-010; 05000301/2011-010, 03/23/2011 – 04/19/2011; Point Beach Nuclear Plant Temporary Instruction 2515/183 - Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event.

This report covers an announced Temporary Instruction (TI) inspection. The inspection was conducted by Resident and Region III inspectors. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

## **INSPECTION SCOPE**

The intent of the TI is to provide a broad overview of the industry's preparedness for events that may exceed the current design basis for a plant. The focus of the TI was on (1) assessing the licensee's capability to mitigate consequences from large fires or explosions on site, (2) assessing the licensee's capability to mitigate station blackout (SBO) conditions, (3) assessing the licensee's capability to mitigate internal and external flooding events accounted for by the station's design, and (4) assessing the thoroughness of the licensee's walk downs and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. If necessary, a more specific follow-up inspection will be performed at a later date.

## **INSPECTION RESULTS**

All of the potential issues and observations identified by this inspection are contained in this report. The NRC's Reactor Oversight Process will further evaluate any issues to determine if they are regulatory findings or violations. Any resulting findings or violations will be documented by the NRC in the next quarterly report.

03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events, typically bounded by security threats, committed to as part of NRC Security Order Section B.5.b issued February 25, 2002, and severe accident management guidelines and as required by Title 10 of the Code of Federal Regulations (10 CFR) 50.54(hh). Use Inspection Procedure (IP) 71111.05T, "Fire Protection (Triennial)," Section 02.03 and 03.03 as a guideline. If IP 71111.05T was recently performed at the facility the inspector should review the inspection results and findings to identify any other potential areas of inspection. Particular emphasis should be placed on strategies related to the spent fuel pool. The inspection should include, but not be limited to, an assessment of any licensee actions to:

Licensee Action	Describe what the licensee did to test or inspect equipment.
<p>a. Verify through test or inspection that equipment is available and functional. Active equipment shall be tested and passive equipment shall be walked down and inspected. It is not expected that permanently installed equipment that is tested under an existing regulatory testing program be retested.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee performed surveillance procedure 0-PT-FP-014, "Z-935 Portable Diesel-Driven Fire Water Pump Quarterly Functional Test," to verify functionality of the Z-935 portable diesel-driven fire water pump (B.5.b pump), which the licensee considered active equipment. The test verified the B.5.b pump functionality while connected to one of the credited water sources by comparing pump design parameters to acceptance criteria.</p> <p>The licensee also inventoried passive equipment and credited actions using procedure 0-PT-FP-013, "Quarterly Operations B.5.b Fire Equipment Inventory Report." The inventory verified that the tools and equipment for credited actions, including actions for spent fuel pool makeup, were adequate.</p> <p>Additionally, the licensee reviewed the Extensive Damage Mitigation Guideline (EDMG) and Severe Accident Mitigation Guideline (SAMG) procedures credited for B.5.b actions to verify that permanently installed equipment, such as valves, equipment, and tools, were available and accessible.</p>

	<p><b>Describe inspector actions taken to confirm equipment readiness (e.g., observed a test, reviewed test results, discussed actions, reviewed records, etc.).</b></p> <p>The inspectors reviewed completed surveillance, 0-PT-FP-014, and the completed B.5.b fire equipment inventory report, O-PT-FP-013, to ensure that the procedures met the intended objectives. The inspectors' review included an assessment of the B.5.b pump acceptance criteria and equipment requirements. The inspectors also observed portions of the performance of the procedures and observed the licensee during selected walkdowns of the procedures. These activities included hose and pump placement with respect to a credited water source.</p> <p>The inspectors independently verified the material condition of the B.5.b pump and its components, including the engine and the air intake. The inspectors reviewed the licensee's passive equipment list and verified the material condition of six hoses, related hose clamps, distribution fittings, and nozzles used to transfer water to the credited plant areas. The inspectors verified the material condition of the two trailers and vehicle used to transport the B.5.b pump and hoses. Additionally, the inspectors reviewed EDMG-2, "Loss Of Large Areas Of The Plant Due To Fire Or Explosion," and SAMG SAG-4, "Inject Into Containment," and verified that the designated permanently installed equipment, valves, and tools used or manipulated in the implementation of the procedures were available and in good material condition.</p> <p><b>Discuss general results including corrective actions by licensee.</b></p> <p>During the licensee's testing and review, the licensee was able to demonstrate that the current licensing basis (CLB) of the equipment credited for B.5.b actions was met. However, the licensee identified procedural and equipment enhancements. Items identified, corrective actions (CAs) taken by the licensee, and the licensee's corrective action program tracking number included:</p> <ul style="list-style-type: none"> <li>• A lack of spare parts for the B.5.b pump. (AR01630372)</li> <li>• A need for controls when the credited B.5.b vehicle or equipment was offsite for maintenance, drills, or other activities. Immediate CAs included the placement of a sign on the vehicle requiring the Shift Manager be notified when the designated vehicle is taken offsite so that another vehicle can be designated to support</li> </ul>
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	<p>related activities. The licensee also noted that there were typically several vehicles onsite that could perform this function. (AR01632686)</p> <ul style="list-style-type: none"> <li>• A need for spare parts and tools to perform field repairs of passive equipment, including valves and fittings. ( AR01632672, AR01631501)</li> <li>• A need for spare hoses in the event a designated hose was unavailable or failed. (AR01632678)</li> <li>• A possible need of a second B.5.b pump as an enhancement to the licensee's program. ( AR01631487)</li> <li>• The consideration of an emergency preparedness (EP) drill with a loss of power to the technical support center (TSC) and the emergency operations facility (EOF). (AR01632667)</li> </ul> <p>The inspectors performed an independent review of the licensee's related procedures and equipment and concluded that they met the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• A seismic vulnerability of the B.5.b pump and equipment associated with B.5.b actions because these items are stored in a non-seismic building. This configuration meets the CLB; however, the licensee has initiated a condition report to consider the observation for further review. (AR01632672)</li> <li>• A vulnerability of the B.5.b pump surveillance test acceptance criteria. The inspectors identified that the licensee's test did not consider the impact of using a pressurized source vs. a non-pressurized source and did not consider the impact on the acceptance criteria. The licensee credits both pressurized and non-pressurized sources for the B.5.b actions. This item was inspected using inspection procedure (IP) 71111.22 and will be documented in Inspection Report (IR) 2011003, Section 1R22. (AR01641496)</li> <li>• A need for testing, charging, and inspecting the two sets of start-up batteries on the B.5.b pump diesel engine. Although the batteries were ultimately tested using the related surveillance test, the licensee had no procedures to test or charge both sets of batteries. Additionally, the licensee had no procedures to inspect the batteries and ensure the functionality of the non-aligned batteries. (AR01638483)</li> </ul>
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Licensee Action	Describe the licensee's actions to verify that procedures are in place and can be executed (e.g., walkdowns, demonstrations, tests, etc.).
<p>b. Verify through walkdowns or demonstration that procedures to implement the strategies associated with B.5.b and 10 CFR 50.54 (hh) are in place and are executable. Licensees may choose not to connect or operate permanently installed equipment during this verification.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee performed walkdowns and demonstrations using their abnormal operating procedures (AOPs), severe accident control room guideline (SACRG), EDMG, and SAMG procedures credited for B.5.b strategy actions. The licensee's walkdowns included using auxiliary operators (AOs) to route and connect hoses used to provide water credited in their B.5.b analysis, and verifying valve lineups for credited flow paths. The licensee evaluated their ability to perform the procedures, as well as a review of equipment and plant accessibility needed to perform proceduralized actions. Additionally, the licensee completed "table-top" exercises with qualified individuals to verify the procedures could be implemented as written.</p>
	<p><b>Describe inspector actions and the sample strategies reviewed. Assess whether procedures were in place and could be used as intended.</b></p> <p>The inspectors independently reviewed EDMG-2, "Loss of Large Areas Of The Plant Due To Fire Or Explosion." to verify the procedure could be executed to implement the B.5.b strategies. The inspectors reviewed completed procedures SAMG SAG-1, "Inject Into The Steam Generators," and SAMG SAG-4, "Inject Into Containment," to verify the procedures were executable and that deficiencies noted were documented in the corrective action program (CAP).</p> <p>The inspectors observed the licensee perform sections of EDMG-2 and verified it could be completed as written. Specifically, the inspectors observed the licensee routing the hoses from a B.5.b pump credited source to the spent fuel pool.</p> <p>The inspectors independently reviewed the path used to position the B.5.b pump and hoses to and from its suction sources to verify the paths were accessible and usable for design basis and beyond design basis (BDB) events. Specifically, the inspectors walked down the routes outside of the turbine building, intake structure, technical support center building, and the extension building and verified there were no obstructions that may impede completing the procedure as written. Additionally, the inspectors walked down the path to the spent fuel pool to verify it was accessible.</p>



	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>During the licensee's walkdowns and table-top exercises, the licensee demonstrated that the current design and credited B.5.b actions met the CLB. However, the licensee identified procedural and equipment enhancements. Items identified and CAs taken by the licensee included:</p> <ul style="list-style-type: none"> <li>• A need to provide controls to prevent the placement or staging of equipment in areas that may challenge the completion of B.5.b actions. Specifically, the licensee identified that scaffolding, cables, and other equipment were placed in the location where the B.5.b pump would be staged to obtain water from one of the credited suction sources. Although the licensee was still able to place the pump at the credited source, it was difficult to place the pump as proceduralized. The licensee initiated condition reports AR01630519 and AR01638039 to assess this and similar issues that could result from outages or other activities on performing procedural actions.</li> <li>• A need for multiple procedural and equipment enhancements was identified. These condition reports are listed in the reference section of this report.</li> </ul> <p>The inspectors performed an independent review of the listed procedures and concluded that procedures used to implement the strategies associated with B.5.b and 10 CFR 50.54(hh) are in place, are executable, and meet the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• A vulnerability related to the transportation paths used to transfer the B.5.b pump and the trailer containing the hoses, valves, and other equipment credited for B.5.b actions due to the paths being adjacent to non-seismic structures, systems, and component (SSCs). (AR01635479)</li> <li>• A vulnerability related to the paths used to route the hoses from the B.5.b pump to the areas credited by the B.5.b actions, such as the spent fuel pool, due to the paths containing non-seismic SSCs. (AR01635484)</li> </ul>
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Licensee Action	Describe the licensee's actions and conclusions regarding training and qualifications of operators and support staff.
<p>c. Verify the training and qualifications of operators and the support staff needed to implement the procedures and work instructions are current for activities related to Security Order Section B.5.b and severe accident management guidelines as required by 10 CFR 50.54 (hh).</p>	<p>The licensee reviewed the required training and qualifications of needed staff to verify they were current for activities related to B.5.b and SAMG procedures. The licensee reviewed qualification requirements for the fire brigade, operations personnel, and the emergency response organization related to EDMG and SAMG actions. Additionally, the licensee reviewed the number of individuals qualified for each of the positions and the number of individuals required for each shift to ensure credited actions could be performed.</p>
	<p><b>Describe inspector actions and the sample strategies reviewed to assess training and qualifications of operators and support staff.</b></p> <p>The inspectors verified the adequacy of the training and qualifications of operators and support staff needed to implement procedures and work instructions related to B.5.b and SAMG actions. Additionally, the inspectors verified the training was documented and current.</p> <p>The inspectors sampled the licensees training program documents, including the qualification matrix, qualification journals, and training slides. The inspectors reviewed procedure PBN LOC 10B 004L, "Auxiliary Operator Training Program," PBN LOC 09C 007L, "Licensed Operator Continuing," and PBN BEP 081 001L, "Emergency Management Guideline for Decision Makers/Evaluators," to verify the adequacy of the training. The inspectors also reviewed the licensees training program document, PBN EP TP, "Training Program Description, Emergency Preparedness," to verify the adequacy of the EP training. Additionally, the inspectors reviewed related training records to verify they were current and adequate.</p>

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>During the licensee's review, the licensee identified several observations. Items identified and CAs taken by the licensee included:</p> <ul style="list-style-type: none"> <li>• Missing training records for some positions required to implement procedures related to B.5.b and SAMG. The licensee interviewed the team members whose records were missing and those members did recall attending the required training. Team members with missing training records were provided with remedial training. The licensee initiated multiple condition reports to assess this issue. These condition reports are listed in the reference section of this report.</li> <li>• Missing training records for required SAMG tabletop drills. The licensee identified that a number of records for required table-top drills performed since 2005 were missing. Qualified individuals were interviewed; these individuals stated that they recalled performing the drills. Subsequently, the licensee completed makeup exercises for the required table-top training where records were missing. (AR01631034)</li> <li>• A desire to revisit the current training policy on SAMG and EDMG procedures to consider having more individuals complete the training, have more detailed training, and/or changing the frequency of the training. (AR01632682)</li> </ul> <p>The inspectors reviewed the licensee's CAs for the deficiencies noted, and the CAs taken appeared to address the issues identified and meet the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• A lack of procedural controls for the training program that would allow individuals to be on watch for emergency response positions without completing initial SAMG training. As a result of the observation, the licensee updated the training program to have SAMG training as a part of the initial emergency response qualification. The licensee initiated multiple condition reports, which are listed in the reference section of this report.</li> <li>• A possible vulnerability related to the number of qualified AOs required to be at the site due to the amount of actions they would have to perform during a BDB event. (AR01632643)</li> </ul>
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Licensee Action	Describe the licensee's actions and conclusions regarding applicable agreements and contracts are in place.
<p>d. Verify that any applicable agreements and contracts are in place and are capable of meeting the conditions needed to mitigate the consequences of these events.</p> <p>This review should be done for a reasonable sample of mitigating strategies/equipment.</p>	<p>The licensee verified that applicable agreements and contracts were in place, current, and capable of meeting the conditions needed to mitigate the consequences of events related to B.5.b and SAMG actions. Specifically, the licensee reviewed the B.5.b and SAMG procedures and commitments to ensure the applicable agreements were adequate.</p>
	<p><b>For a sample of mitigating strategies involving contracts or agreements with offsite entities, describe inspector actions to confirm agreements and contracts are in place and current (e.g., confirm that offsite fire assistance agreement is in place and current).</b></p>
	<p>The inspectors reviewed the licensee's B.5.b commitments to verify the licensee had the appropriate letters of agreement and contracts in place. The inspectors sampled the letters of agreement and contracts to verify they were current and appeared capable of meeting the conditions needed to mitigate the consequences of these events. Specifically, the inspectors reviewed the agreements with the Two Rivers Fire Department/Ambulance and the Two Creeks Volunteer Fire Department. Additionally, the inspectors reviewed the agreements to see if they reflected the capability and equipment of the party in agreement.</p>
	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>The licensee had an observation concerning the agreements. Items identified and CAs taken by the licensee included:</p> <ul style="list-style-type: none"> <li>• A lack of formal agreements with two facilities credited to support the licensee in fire fighting events as stated in the B.5.b commitments. However, the licensee identified memos containing mutual aid agreements with these facilities, including the facilities fire fighting capabilities. Additionally, the licensee identified that formal agreements were not necessary due to the facilities not being the primary fire protection support and that they would provide support as necessary as part of Mutual Aid Box Alarm System network. (AR01633805)</li> </ul>

	<p>The inspectors reviewed the licensee's CAs for the observation noted. From the samples reviewed, the inspectors concluded that actions taken by the licensee appear to have addressed the issues identified and meet the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• A lack of formal documentation reflecting the capabilities of the external fire fighting resources for which agreements were in place. The inspectors were concerned that the licensee could not ensure that credited resources would remain available upon renewal of the agreements. (AR01641520)</li> </ul>

Licensee Action	Document the corrective action report number and briefly summarize problems noted by the licensee that have significant potential to prevent the success of any existing mitigating strategy.
<p>e. Review any open corrective action documents to assess problems with mitigating strategy implementation identified by the licensee. Assess the impact of the problem on the mitigating capability and the remaining capability that is not impacted.</p>	<p>No conditions were identified by the licensee that would impact the ability of the equipment or procedures to meet the mitigation strategies or events identified in the CLB.</p> <p>The licensee's open CAs for enhancements or reviews included:</p> <ul style="list-style-type: none"> <li>• AR01630818, "IER 11-1 – Storage of B.5.b Truck and Trailer" This condition report will assess the adequacy of the current storage location of the B.5.b pump and related equipment. The licensee is considering if the B.5.b pump and related equipment should be stored in an offsite storage facility or a seismic location, or if they should consider acquiring another unit for seismic and diversity considerations.</li> <li>• AR01632641, "IER1 11-1 Consider Split Storage of Boric Acid" This condition report will assess a need to have boric acid stored in separate locations. This would to reduce the risk of losing all of the boric acid during a natural event.</li> <li>• AR01632643, " IER1 11-1 Review Current Staffing Levels" This condition report will assess the current staffing levels for fire fighting and shift staffing to ensure the station can respond to natural events that may challenge the station. The inspectors noted that station AOs could be expected to perform a large number of actions during a design or BDB event. The licensee's minimum staffing requirements for the total number of AOs onsite ranged for 2 to 4 depending on the operating mode of the units.</li> </ul> <p>Other related condition reports are listed in the reference section of this report.</p>

<p>03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63, "Loss of All Alternating Current Power," and station design is functional and valid. Refer to TI 2515/120, "Inspection of Implementation of Station Blackout Rule Multi-Plant Action Item A-22," as a guideline. It is not intended that TI 2515/120 be completely reinspected. The inspection should include, but not be limited to, an assessment of any licensee actions to:</p>		
<b>Licensee Action</b>	<b>Describe the licensee's actions to verify the adequacy of equipment needed to mitigate an SBO event.</b>	
<p>a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.</p>	<p>The licensee used ECA 0.0, "Loss Of All AC Power," AOP-23, "Establishing Alternate AFW Suction Supply," and AOP-30, "Temporary Ventilation for Vital Areas," procedures which are credited for SBO actions, to verify and walkdown the equipment necessary to perform the actions. Specifically, the licensee verified that appropriate lighting, tools, power cables, and other equipment were properly staged, tested, and maintained.</p>	
	<b>Describe inspector actions to verify equipment is available and useable.</b>	
	<p>The inspectors observed the licensee perform walkdowns of portions of ECA 0.0 and AOP 30 to verify materials were adequate and properly staged, tested, and maintained. Specifically, the inspectors observed the licensee walk down areas used in the procedures to verify stationed and permanent equipment, including portable lighting, permanent lighting, and tools, were properly staged, had valid calibrations and testing, and were in acceptable material condition. The inspectors also walked down areas related to the procedures, including the area around the condenser steam dumps, the feedwater regulating valves, the main steam isolation valves, the auxiliary feedwater pump rooms, and the facade. The inspectors performed an independent review of selected items, including wrenches, portable lighting, and staged tools used during the procedures, to verify the material condition of the equipment.</p>	

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>During the licensee's walkdowns and equipment verification, the licensee demonstrated that the CLB for the equipment credited for SBO. However, the licensee identified procedural and equipment enhancements which included:</p> <ul style="list-style-type: none"> <li>• A vulnerability for some equipment credited for actions required by SBO procedures because it was not being inventoried. Additionally, the NRC inspectors inquired about inventories for tools and equipment for all off-normal and emergency procedures which the licensee had not considered. The licensee's subsequent review identified multiple occurrences of equipment not being inventoried. The licensee initiated multiple condition reports, which are listed in the reference section of this report.</li> <li>• A vulnerability due to a lack of procedural guidance to ensure that power cables (extension cords) were routed in a manner which ensured the cables were long enough to perform the intended functions. The licensee identified an insufficient number of power cables to support concurrent activities. Immediate CAs included the manufacture/purchase of new cables to ensure sufficient cables of the appropriate length and quantity were available. Additionally, the licensee is considering a modification to allow easier cable connections through wall penetrations. (AR01633591, AR01633951)</li> </ul> <p>The inspectors performed an independent review of credited equipment and found it to be capable of performing as required by the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• A possible vulnerability related to the seismic qualification of credited support equipment. Specifically, the licensee is crediting installed lighting that is not seismically qualified and may not be available to perform actions through the plant in case of a SBO during a seismic event. The licensee initiated condition report AR01635992 to consider alternate lighting options such as head lamps for operators.</li> </ul>
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Licensee Action	Describe the licensee's actions to verify the capability to mitigate an SBO event.
b. Demonstrate through walkdowns that procedures for response to an SBO are executable.	<p>The licensee performed walkdowns, a table-top exercise, and simulator runs for ECA 0.0 to verify SBO procedures were executable. The licensee also reviewed and performed walkdowns of procedures AOP-23 and AOP-30 to ensure the procedures could be executed as written.</p>
	<p><b>Describe inspector actions to assess whether procedures were in place and could be used as intended.</b></p>
	<p>The inspectors independently reviewed procedure ECA 0.0 and AOP-30 to verify the procedures could be performed as written. The inspectors accompanied the licensee on selected walkdowns to verify the licensee's actions and assess procedural adequacy. The inspectors also performed independent walkdowns and inspections of areas that required local operation of equipment. Specifically, the inspectors walked down areas around the condenser steam dumps, the feedwater regulating valves, the main steam isolation valves, the AFW pump rooms, and the facade to verify the areas were accessible and had appropriate lighting and tools to be able to complete actions required by the SBO procedures.</p>
	<p><b><i>Discuss general results including corrective actions by licensee.</i></b></p> <p>During the licensee's review, the licensee was able to demonstrate that they meet the CLB for the equipment credited during an SBO. However, the licensee identified several procedural vulnerabilities which included:</p> <ul style="list-style-type: none"> <li>• A vulnerability in procedure ECA 0.0 that directed the reactor operator to reset and close a breaker that was closed previously in the procedure. This step if performed would cause the breaker to open and de-energize a safety-related bus. The licensee made procedure changes to ensure the bus was not inadvertently de-energized. Additionally, the licensee stated that based on operator training and proper procedure use, the operator would be expected to progress through the steps without de-energizing needed buses. (AR01632722)</li> <li>• A vulnerability in AOP-30 that allowed multiple fans to be connected to a portable power panel. If these fans were connected to the same circuit it could create a</li> </ul>

	<p>circuit overload condition. This could result in the operator having to reestablish the loads and reset the fans. The licensee made a procedure change to provide guidance on how to connect the fans. (AR01636370)</p> <ul style="list-style-type: none"> <li>• A vulnerability in ECA 0.0 because the procedure would allow the G-05 gas turbine, the station SBO alternate-current power source, to be aligned to a 13.8 kiloVolt bus during an SBO while the unaffected side of the bus remained connected to the de-energized grid. This could cause G-05 to trip on under-voltage or under-frequency if it attempted to pick up load from the grid. The licensee has since changed the procedure to ensure G-05 is isolated from the grid during the response to an SBO. (AR01634081, AR01633783)</li> </ul> <p>The inspectors did not identify any deficiencies that appeared to impact the performance of activities needed to meet the CLB. Observations identified by the inspectors included:</p> <ul style="list-style-type: none"> <li>• An equipment and procedural vulnerability due to the AFW pump rooms having a shared thermometer for determining if equipment was affected by temperature. Specifically, the Unit 1 AFW pump room has a wall-mounted thermometer and the unit specific procedure, ECA 0.0, requires the licensee enter AOP-30 if temperature exceeds 120 degrees F in either the Unit 1 or Unit 2 AFW pump rooms. The licensee indicated that sufficient communication existed between the AFW rooms, which are separated by a normally closed fire door, due to damper and ventilation configuration and that one thermometer was sufficient. Based on operational observations, the inspectors were not confident that the one thermometer was capable of performing adequately. The licensee indicated that operators were capable of detecting differences in room temperatures, and if differences were noted, they would use an infrared thermometer to obtain the required temperatures. After further questions by the inspectors, the licensee initiated condition report AR01641992 to assess the qualification of the operators and the procedural guidance relative to taking general area temperature readings using an infrared device.</li> </ul>
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03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design. Refer to IP 71111.01, "Adverse Weather Protection," Section 02.04, "Evaluate Readiness to Cope with External Flooding," as a guideline. The inspection should include, but not be limited to, an assessment of any licensee actions to verify through walkdowns and inspections that all required materials and equipment are adequate and properly staged. These walkdowns and inspections shall include verification that accessible doors, barriers, and penetration seals are functional.

Licensee Action	<b>Describe the licensee's actions to verify the capability to mitigate existing design basis flooding events.</b>
a. Verify through walkdowns and inspection that all required materials are adequate and properly staged, tested, and maintained.	<p>The licensee performed walkdowns of areas and SSCs credited to mitigate internal and external flooding events. Specifically, the licensee verified the adequacy of credited flood barriers using procedure RMP 9011-1, "Safe Shutdown Fire Door Inspections." The licensee verified the material condition of the doors, dampers, residual heat removal (RHR) cubicle equipment, and flood barriers. Additionally, the licensee verified and tested doors credited as flood barriers as well as performed surveillances of the RHR cubicle drain valves, level switches, and alarm.</p>
	<p><b>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</b></p> <p>The inspectors reviewed RMP 9011-1, NP 8.4.17, "PBNP Flooding Barrier Control," and PC 80, Part 7, "External Floods," to ensure they could be executed as written. The inspectors accompanied the licensee on selected walkdowns to verify the licensee's actions, such as the testing and maintenance of flood doors, and to assess their adequacy. The inspectors independently walked down areas susceptible to flooding. Specifically, the inspectors walked down the G-01 and G-02 emergency diesel generator (EDG) rooms, the RHR pump pits, multiple flood doors throughout the plant, flood barriers, and the intake structure to verify the material condition of flood mitigating barriers, dampers, and drains to ensure they could perform their intended function.</p>

	<p><b>Discuss general results including corrective actions by licensee.</b></p> <p>During the licensee's testing and review, the licensee identified issues that may adversely impact the CLB of the equipment credited for flooding. Items identified and CAs taken by the licensee included:</p> <ul style="list-style-type: none"> <li>• A possible adverse impact to the RHR pumps. The licensee identified having six non-seismic tanks in the primary auxiliary building (PAB) that if damaged during a seismic event could potentially flood the elevation where the RHR pumps are located. The licensee identified that the RHR room sump pumps were non-safety related. Additionally, the storage capacity of the tanks exceeded the volume of water necessary to overflow the walls and flood the RHR pump rooms. As part of the licensee's immediate CAs, the licensee is administratively controlling the combined water volume of the tanks to ensure that the volume was less than the amount that could potentially impact the RHR pumps. The licensee initiated condition report AR01633384. This item was inspected and will be documented in IR 2011003, Section 1R15.</li> <li>• A possible adverse impact to the vital switchgear room. Specifically, the condensate storage tanks (CSTs) and a block wall in the vicinity of the CST, which was serving as a flood barrier, may not be seismically qualified. The water in the CST could impact the vital switchgear room during a seismic event. The licensee initiated condition report AR01634515. This item was inspected using IP 71111.15 and will be documented in IR 2011003, Section 1R15.</li> <li>• A lack of adequate procedural guidance for flood door inspections. Specifically, the procedure did not provide adequate direction to ensure consistent measurement of the sweep gap on flood doors. No doors were found to have gaps in excess of the acceptance criteria. As part of the CAs, the licensee revised procedure RMP 9011-1 and incorporated the use of a tapered gauge to measure the door sweep gap accurately and consistently. (AR01633548)</li> </ul> <p>The inspectors performed an independent review of selected equipment and materials to ensure that they were adequately staged, tested, and maintained. The inspectors identified no issues that would have prevented the SSCs and procedures from meeting the CLB. In addition to observations identified by the licensee, the inspectors had the following observations:</p>
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	<ul style="list-style-type: none"> <li>• A possible adverse impact to the RHR pumps, as discussed above. The inspectors questioned the current and past operability of the RHR pumps due to the possible adverse impact caused by non-seismic tanks. This item was inspected using IP 71111.15 and will be documented in IR 2011003, Section 1R15.</li> <li>• A possible adverse impact to the vital switchgear room, as discussed above. The inspectors questioned the current and past operability. This item was inspected using IP 71111.15 and will be documented in IR 2011003, Section 1R15.</li> </ul>
<p>03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events possible for the site. Assess the licensee's development of any new mitigating strategies for identified vulnerabilities (e.g., entered it in to the corrective action program and any immediate actions taken). As a minimum, the licensee should have performed walkdowns and inspections of important equipment (permanent and temporary), such as storage tanks, plant water intake structures, and fire and flood response equipment, and developed mitigating strategies to cope with the loss of that important function. Use IP 71111.21, "Component Design Basis Inspection," Appendix 3, "Component Walkdown Considerations," as a guideline to assess the thoroughness of the licensee's walkdowns and inspections.</p>	
<b>Licensee Action</b>	<b>Describe the licensee's actions to assess the potential impact of seismic events on the availability of equipment used in fire and flooding mitigation strategies.</b>
a. Verify through walkdowns that all required materials are adequate and properly staged, tested, and maintained.	<p>The licensee performed walkdowns and inspections of all permanently installed fire protection equipment, the B.5.b pump, and the B.5.b equipment storage facility. Specifically, the licensee walked down the electric-driven fire pump and related components, the diesel-driven fire pump (DFP) and related components, the DFP fuel day tank, intake structure piping, portable pump suction sources, B.5.b pump, the B.5.b storage building, related B.5.b components, fire mains, and fire system piping on site. Additionally, the licensee walked down flood barriers used to prevent or limit intrusion of water into vital areas.</p>

	<p><b>Describe inspector actions to verify equipment is available and useable. Assess whether procedures were in place and could be used as intended.</b></p> <p>The inspectors accompanied the licensee on selected walkdowns to verify the licensee's actions and assess their adequacy. Additionally, the inspectors independently walked down fire piping, fire mitigating components, the B.5.b pump, B.5.b related equipment, flood barriers, and areas susceptible to flooding. The walkdown included the RHR pits, G-01 and G-02 EDG rooms, the CST area, the intake structure, fire protection piping, the DFP, DFP day tank, flood barriers, and flood dampers.</p> <p><b>Discuss general results including corrective actions by licensee. Briefly summarize any new mitigating strategies identified by the licensee as a result of their reviews.</b></p> <p>The licensee demonstrated that the SSCs reviewed met the CLB. However, the licensee identified equipment that may be adversely impacted during a seismic event. Additionally, the licensee identified the potential need for mitigation strategies for affected SSCs. Items identified by the licensee included:</p> <ul style="list-style-type: none"> <li>• A review of a need to seismically qualify the DFP day tank. (AR01637972)</li> <li>• A consideration for, and alternate means of, transferring additional fuel to the DFP day tank. ( AR01637978)</li> <li>• A consideration for replacement of the DFP engine, and potentially the DFP, due to it being obsolete and unreliable. (AR01637979)</li> <li>• A consideration for installing wall hydrants to permit connection of portable pumps and the installation of hose jumpers to allow the bypassing of buried fire protection piping sections which are susceptible to damage during a seismic event. (AR01637985)</li> <li>• A consideration of a contingency plan to provide procedural guidance to supply the B.5.b pump with fuel from other sources. (AR01637992)</li> <li>• A consideration of upgrading fire water system components within the intake structure to withstand a safe shutdown earthquake. (AR01637972)</li> </ul>
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	<p>The inspectors sampled the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events and identified no deficiencies relative to the CLB. The inspectors communicated the below observations to the licensee:</p> <ul style="list-style-type: none"> <li>• The inspectors found no alternate means of supplying, or moving, fuel from onsite sources to related mitigation equipment, including methods to use fuel that may be floating on water that may have intruded into tanks.</li> <li>• The inspectors found no requirement to ensure that all fuel tanks are filled prior to high risk conditions such as adverse weather.</li> <li>• The inspectors found no repetitive task to periodically test and replace batteries for portable equipment.</li> <li>• The inspectors found no consideration for the need for additional hoses and equipment if alternate routes are needed due to unanticipated problems.</li> <li>• The inspectors found no method for dealing with interference from energized equipment or wires resulting from events.</li> <li>• The inspectors found no contingencies for a loss of power that could affect SSC accessibility due to de-energized electrically controlled doors or components.</li> <li>• The inspectors found no consideration to reassess the duties and cross-qualification of onshift personnel, such as the shift technical advisor, and radiation protection technicians, for collateral or contingency duties during events.</li> <li>• The inspectors found no periodic reviews or surveillances to reaffirm the capabilities of organizations credited through letters of agreement.</li> <li>• The inspectors found that the licensee had not considered what offsite equipment could be used during events; nor had the licensee identified the need to ensure that fittings or adaptors were available to allow offsite equipment to be used onsite during events. Similarly, the inspectors noted that the licensee had not considered equipment that could be shared between Point Beach and the Kewaunee Power Station.</li> <li>• The inspectors noted that the licensee had not considered resource conflicts that may arise if shared resources between Point Beach and the Kewaunee Power Station were demanded simultaneously.</li> <li>• The inspectors noted that the licensee had not reviewed any common mode impacts that may simultaneously affect Point Beach and Kewaunee Power Station, such as downed power lines or blocked site evacuation or site access routes.</li> <li>• The inspectors noted that there may be a need to review inclement weather contingencies, e.g., snow emergency route maintenance with local government.</li> </ul>
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	<ul style="list-style-type: none"> <li>• The inspectors noted that there were no letters of agreement to supply alternate sources of electricity, or other equipment and resources, such as pumps, ventilation, food, water, or compressed air, during some events (e.g., SBO, tornado).</li> <li>• The inspectors noted that there were no agreements to ensure that the licensee obtained priority standing in case of emergency.</li> <li>• The inspectors noted that the impact of events on outside resources had not been assessed. For example, the licensee had not assessed the impact of a loss of engineering support groups in the corporate offices in Florida, or alternate capabilities to interface with the engineering support groups in Florida.</li> <li>• The inspectors noted that the licensee had not considered assessing offsite storage of alternate emergency equipment.</li> <li>• The inspectors found no specific requirements for the frequency or quantity of repetitive training, such as simulator training or drills, related specifically to SBO, B.5.b, and other events.</li> <li>• The inspectors found no recent review of post-TMI [Three Mile Island] actions or commitments.</li> <li>• The inspectors questioned the method and incorporation of operating experience from natural phenomena such a tornado at the Fermi nuclear plant in 2010, hurricane Andrew in 1992, and hurricane Katrina in 2005.</li> <li>• The inspectors found that the licensee had not performed a review of natural phenomena related to the independent spent fuel storage installation subsequent to the current events.</li> </ul> <p>The licensee initiated condition report AR01641960 to assess these observations.</p>
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## Meetings

### .1 Exit Meeting

The inspectors presented the inspection results to Mr. J. Costedio and other members of licensee management at the conclusion of the inspection on April 19, 2011.

The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. Proprietary information was returned to the licensee.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

J. Costedio, Licensing Manager  
B. Castiglia, Performance Improvement Manager  
P. Wild, Engineering Site Manager-Design  
C. Hill, Operations Assistant Manager-Training  
T. Kendall, Principal Design Engineer  
J. Loor, Environmental Qualification Engineer  
D. Minerath, Electrical Engineer  
B. Scherwinski, Licensing Analyst

#### Nuclear Regulatory Commission

P. Cardona-Morales, Reactor Engineer  
S. Burton, Senior Resident Inspector  
M. Thorpe-Kavanaugh, Resident Inspector

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### 03.01 Assess the licensee's capability to mitigate conditions that result from beyond design basis events

- 0-PT-FP-014; Z-935 Portable Diesel Driven Fire Water Pump Quarterly Functionality Test; Completed March 17, 2011
- B.5.b Pump Review; April 2, 2011
- AR01630510; IER1 11-1 Evaluate Delta Between Rev. 0 And Rev. 1 WOG SAMGs
- AR01289462; B.5.b Phase 1 Resolution Items
- AR01630818; IER1 11-1 Storage Of B.5b Truck And Trailer
- AR01630881; IER1 11-1 ERO SAMG Training Documentation For Emergency Directors
- AR01630884; IER1 11-1 ERO SAMG Training Documentation For TSC Managers
- AR01630886; IER1 11-1 ERO SAMG Training Documentation For OPS Coordinator
- AR01630888; IER1 11-1 ERO SAMG Training For Engineering Coordinators
- AR01630889; IER1 11-1 ERO SAMG Training Documentation For RX/Core Physics Engineers
- AR01630519; IER1 11-1 Material May Block B.5.b Truck/Pump Positioning
- AR01630642; Discrepancy During SAMG-1 Walkdown For Unit 1
- AR01631031; IER1 11-1 Unclear Commitment To SAMG Document Types
- AR01631137; IER1 11-1 SAMG SAG-4 Flow Path Validation
- AR01631140; IER1 11-1 SAMG SACRG-1 Does Not Cover Spent Fuel Pool
- AR01631145; IER1 11-1 SAMG SCG-1 Mitigate Fission Product Release
- AR01631152; IER1 11-1 Japan EQ SAMG SCG-2 – Depressurize Containment
- AR01631158; IER1 11-1 Japan EQ SAMG SCG-3 – Control Hydrogen Flammability
- AR01631171; IER1 11-1 Japan EQ SAMG SCG-3 – Inject Into The RCS
- AR01631187; IER1 11-1 Japan EQ SAMG SACRG-1 – Severe Accident Control Room Guide
- AR01631285; IER1 11-1 Required Training Not Listed On Qual Guide
- AR01631395; IER1 11-1 AO TPD SAMG Biennial Refresher Training
- AR01631432; IER1 11-1 EP SAMG Initial Training For COs
- AR01631434; IER1 11-1 EP SAMG Initial Training For AOs
- AR01631487; IER1 11-1 Japan EQ Possible Need For 2<sup>nd</sup> B.5.b Diesel Pump
- AR01631501; IER1 11-1 Japan QC, Possible Spare Parts For Passive Equipment
- AR01631712; IER1 11-1 EDMG-2 Does Not Address Opening New FIVS
- AR01631891; IER1 11-1 EDMG-2 Required Equipment Clarification
- AR01632641; IER1 11-1 Consider Split Storage of Boric Acid
- AR01632643; IER1 11-1 Review Current Staffing Levels
- AR01632686; IER1 11-1 Evaluate The Current B.5.b Truck Maintenance
- AR01636477; IER1 11-1 B.5.b Hose Leakage Issues In Fleet
- AR01632682; IER1 11-1 Revisit Training Policy For SAMG/EDMGs
- AR01633805; IER1 11-1 B.5.b Phase 1 Commitment Resolution
- AR01635484; IER1 11-1 Betterment Issue: Seismic Hose Route (NRC-Identified)
- AR01636540; IER1 11-1 Vulnerability: Inadequate B.5.b Pump
- AR01638039; IER1 11-1 Outage Activity Impact On B.5.b And SAMG Strategy
- AR01641496; Pump Testing (NRC-Identified)
- AR01641520; Determine Necessity For Local Fire Department Inventories (NRC-Identified)

- Correspondence, R. Herman, Manitowoc County Sherriff's Department, To M. Fencel, PBNP; Letter Of Agreement; August 26, 2011
- EDMG-1; PBNP Emergency Management Guideline; Revision 1
- EDMG-2; Loss Of Large Areas Of The Plant Due To Fire Or Explosion; Revision 3
- EDMG-2; Loss Of Large Areas Of The Plant Due To Fire Or Explosion; Revision 4
- EPI-05-LP002; SAMG Overview; Initial Training
- INPO IERL1-11-1 Procedure Validation; EDMG-2 Loss Of Large Areas Of The Plant; March 19, 2011
- INPO IERL1-11-1 Procedure Validation; SAMG SAG-1 Inject Into The Steam Generators; Revision 4
- INPO IERL1-11-1 Procedure Validation; SAMG SAG-1 Inject Into The Steam Generators; March 17, 2011
- INPO IERL1-11-1 Procedure Validation; SAMG SAG-4 Inject Into Containment; March 18-19, 2011
- L-HR-06-007, 10 CFR 73; Correspondence, D. Malone, NMC, To NRC; Response To NRC Phase 2 Assessment Of Spent Fuel Pools; February 14, 2006
- NPL 2010-0393; Letter Of Agreement – Mishicot Area Ambulance Service; November 3, 2010
- NPL 2010-0395; Correspondence from G. Buckley, City Of Two Rivers, to J. Schleif, PBNP; December 9, 2010
- NPL 2010-0398; Letter of Agreement – Two Creeks Volunteer Fire Department; November 4, 2010
- NPM 2008-0192; Internal Correspondence To P. Olson From G. Lindow Re: B.5.b Project Responding Fire Department Equipment Interface And Walk Down For Spray Deployment; August 19, 2008
- NPM 2008-0207; Internal Correspondence, J. Becks, FPL Energy, To P. Olson; Re: B.5.b Site Drill To Provide Makeup To The SFP – 2-Hour Requirement; August 11, 2008
- NRC 2007-0012, EA-02-026, B.5.b; Correspondence, D. Koehl, NMC, To NRC; Response Providing Information Regarding Implementation Details For The Phase 2 And 3 Mitigation Strategies; February 27, 2007
- NRC 2007-0031, EA-02-026, B.5.b; Correspondence, D. Koehl, NMC, To NRC; Response To Mitigation Strategy Assessments And Closure Process For Phases 1, 2 And 3, Response To Request For Additional Information; April 27, 2007
- NRC 2007-0096, EA-02-026, B.5.b; Correspondence, J. McCarthy, FPL Energy, To J. Caldwell, NRC; NRC Security Order B.5.b Project Implementation Schedule Change; December 20, 2007
- PBN EP TP; Qualification Manual For Operations Coordinator PBN BEP 061 008Q; Revision 2
- PBN EP TP; Training Program Description; Revision 9
- PBN EP TP; Training Program Description; Revision 10
- PBN LOC 09C 007L; SAMG Refresher; Revision 0
- PBN LOC 10B 004L, FIRES; Licensed Operator Continuing Training Program; Revision 0
- PBN LOI TPD; Update Log Form For: PBNP Licensed Operator Initial Training, Training Program Description; January 31 - April 8, 2011
- PT-FP-013; Quarterly Operations B.5.b Fire Equipment Inventory Report; Revision 5
- SAMG SAG-1; Inject Into The Steam Generators; Revision 4
- SAMG SAG-4; Inject Into Containment; Revision 2
- Tour Guide EDMG-2 Portable Diesel Fire Pump And Hose Trailer
- PBN BEP 081 001L; Emergency Management Guideline For Decision Makers/Evaluators; Revision 0
- PBN EP TP; Qualification Manual For Engineering Coordinator, PBN BEP 061 007Q; Revision 2

### 03.02 Assess the licensee's capability to mitigate station blackout (SBO) conditions

- AR01632554; IER1 11-1 Error In ECA 0.0 Unit 1 And ECA 0.0 Unit 2
- AR01632667; IER1 11-1 Consider An EP Drill With TSC/EOF No Power
- AR01632694; IER1 11-1 ECA-0.0 Unit 1 Loss Of All AC Power
- AR01632699; IER1 11-1 ECA-0.0 Unit 2 Loss Of All AC Power
- AR01633770; IER1 11-1 Invalid Or Unused Step In ECA 0.0 Unit 1
- AR01633783; IER1 11-1 Potential Issue With ECA 0.0 For G-05 Startup
- AR01633789; IER1 11-1 Delta Between ECA 0.0 Unit 1 And Unit 2
- AR01633825; IER1 11-1 Add Option In ECA 0.0 To Start G-05 Locally
- AR01633911; IER1 11-1 Periodic Check Of AFW Room Toolbox Recommended
- AR01633922; IER1 11-1 Thermometer Monitoring Half Of AFW Pump Room (NRC-Identified)
- AR01633938; IER1 11-1 MSIV Wrench Too Big To Carry Safely
- AR01633954; IER1 11-1 AOP-30 Guidance On PAG Temp Ventilation Weak
- AR01633353; IER1 11-1 Time To Restore SBO Bus Not Met
- AR01633591; IER1 11-1 AOP-30 Walkdown Response
- AR01633598; IER1 11-1 AOP 30 Attachment F Power Cabling
- AR01633606; IER1 11-1 AOP-30 Walkdown
- AR01634081; IER1 11-1 Potential G-05 Vulnerability During SBO
- AR01636370; IER1 11-1 Multiple Fans On X-71 Circuit could Trip Breaker
- AR01637311; IER1 11-1 Extension Cable To Support AOP-30 Are Too Long
- AR01639100; AOP-30 Temporary Ventilation For Vital Areas
- AR01641014; TI 2515/183 Inspection: Tools Not On Inventory List (NRC-Identified)
- AR01641132; PC 6 Part 1 Monthly Operations Inventory Report
- AR01641133; MSIV Torque Wrench Parts Not On Inventory List (NRC-Identified)
- AR01641893; AOP-30 Temporary Ventilation For Vital Areas
- AR01641989; AOP-30 Spare Fans And Ductwork Not Inventoried
- AR01641992; IER1 11-1 Evaluate Possible Training For Infrared Thermal Gun (NRC-Identified)
- PC 29; Gas Turbine And Auxiliary Diesel Load Test; Revision 46
- PC 29; Gas Turbine And Auxiliary Diesel Load Test; Revision 47
- PC 6 Part 1; Monthly Operations Inventory Report; Revision 57
- ECA-0.0 Unit 1; Loss Of All AC Power; Revision 52
- ECA-0.0 Unit 1; Loss Of All AC Power; Revision 54
- ECA-0.0 Unit 2; Loss Of All AC Power; Revision 55
- ECA-0.0 Unit 2; Loss Of All AC Power; Revision 57
- O-PC-081.4, Part 1; AOP-10A, C And E Time Line Validation
- Timed Operator Scenarios; To Support Corrective Action Data Gathering For CA051912 And CA052145; September 20, 2003

03.03 Assess the licensee's capability to mitigate internal and external flooding events required by station design

- AOP-13A; Circulating Water System Malfunction; Revision 17
- AR01390617; QA Finding: Control Of Time Critical Operator Actions
- AR01630527; IER1 11-1 Question About Ease Of Flooding In G-01/2 EDG Rooms
- AR01634071; IER1 11-1 19-Foot Sump Pump Level Switch Sticky
- AR01632252; IER1 11-1 Flood Door Gap Found
- AR01633548; IER1 11-1 Flood Barrier Door Inspection
- AR01633384; IER1 11-1 Unanalyzed Challenge From Non-Seismic Internal Flooding
- AR01633660; IER1 11-1 Jersey Barriers Not In Staged Position
- AR01634515; IER1 11-1 Non-Seismic Flood Barrier
- AR01174980; QA Finding: Control Of Time Critical Operator Actions; Assessment Dates November 10-16, 2010; November 17, 2010
- AR01635404; IER1 11-1 Enhancement To Consolidate Flood In AOPs
- AR01636267; IER1 11-1 Internal Flooding Betterment/Enhancement
- AR01636377; IER1 11-1 CR HVAC Room Floor Needs Re-Seal Maintenance
- AR01635992; IER1 11-1 Enhancement To Auxiliary Operator Equipment (NRC-Identified)
- BG AOP-13A; Circulating Water System Malfunction; Revision 14
- Calculation: 2005-0054; Control Building GOTHIC Temperature Calculation; Rev. 01
- DBD-T-41 Module A; Hazards – Internal And External Flooding; Revision 8
- Floodable Volume Of The 19-Foot Elevation; April 1, 2011
- FSAR Section 2.5; Hydrology; UFSAR 2010
- INPO IERL1-11-1 Procedure Validation; ECA 0.0 Unit 1 Loss Of All AC Power, Revision 1; March 25, 2011
- NP 8.4.17; PBNP Flooding Barrier Control; Revision 13
- OM 4.3.2; Attachment E – Time Critical Actions; EOOP/AOP Verification/Validation Process; Revision 18
- OM 4.3.8; Control Of Time Critical Operator Actions; Revision 0
- ORT 3A; Safety injection Actuation With Loss Of Engineered Safeguards AC (Train A) Unit 1; Revision 43
- ORT 3A; Safety injection Actuation With Loss Of Engineered Safeguards AC (Train A) Unit 2; Revision 41
- ORT 3B; Safety injection Actuation With Loss Of Engineered Safeguards AC (Train B) Unit 1; Revision 40
- ORT 3B; Safety injection Actuation With Loss Of Engineered Safeguards AC (Train B) Unit 2; Revision 40.
- PBNP Rec. 3 Walkdown List; April 1, 2011
- PBNP Rec. 3 Walkdown List; March 28, 2011
- PC 80 Part 7; Lake Water Level Determination; Revision 2
- RMP 9011-1; Safe Shutdown Fire Door Inspections; Revision 12
- RMP 9011-2; Industrial Fire Door, HELB Door And Seismic 2/1 Door Inspections; Revision 8

03.04 Assess the thoroughness of the licensee's walkdowns and inspections of important equipment needed to mitigate fire and flood events to identify the potential that the equipment's function could be lost during seismic events

- AR01629488; IN 2010-18 Needs Evaluation
- AR01633440; NRC IN 2011-05: Earthquake Effects On Japanese Nuclear Power
- AR01630756; Evaluate Environmental Impacts Due To World Events: Japan
- AR01637927; IER1 11-1 Enhancement Opportunity: Diesel Fire Pump Day Tank (T-30)
- AR01637972; IER1 11-1 Enhancement Opportunity
- AR01637978; IER1 11-1 Enhancement Opportunity: DFP Day Tank
- AR01637979; IER1 11-1 Enhancement Opportunity: DFP
- AR01637985; IER1 11-1 Enhancement Opportunity: Wall Hydrants
- AR01637992; IER1 11-1 Enhancement Opportunity: B.5.b Pump (NRC-Identified)
- AR01637999; IER1 11-1 Enhancement Opportunity: Fire Water System
- AR01638005; IER1 11-1 Enhancement Opportunity: Vital Switchgear Room
- AR01641934; IER1 11-1 Fire Piping System Is Not Seismic (NRC-Identified)
- AR01641960; IER 11-1 NRC Insights For Insights For Future Consideration (NRC-Identified)
- Enhancement Note Number Index; April 1, 2011
- FSAR Section 2.9; Seismology; UFSAR 1997
- TS 79; Monthly Surveillance Of Fire Hose Stations; Revision 10

## LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
AFW	Auxiliary Feedwater
AO	Auxiliary Operators
AOP	Abnormal Operating Procedure
ARM	Area Radiation Monitor
BDB	Beyond Design Basis
CA	Corrective Action
CAM	Continuous Air Monitors
CAP	Corrective Action Program
CC	Component Cooling Water
CFR	Code of Federal Regulations
CLB	Current Licensing Basis
CR	Condition Report
CST	Condensate Storage Tank
DFP	Diesel-Driven Fire Pump
EDG	Emergency Diesel Generator
EDMG	Extensive Damage Mitigation Guideline
EOF	Emergency Operations Facility
EP	Emergency Planning
EQ	Environmental Qualification
IP	Inspection Procedure
IR	Inspection Report
MABAS	Mutual Aid Box Alarm System
NRC	United States Nuclear Regulatory Commission
PAB	Primary Auxiliary Building
PARS	Publicly Available Records System
RHR	Residual Heat Removal
SACRG	Severe Accident Control Room Guideline
SAMG	Severe Accident Mitigation Guideline
SBO	Station Blackout
SSC	Structure, System, and Component
TSC	Technical Support Center



L. Meyer

-2-

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Sincerely,

**/RA/**

Michael A. Kunowski, Chief  
Branch 5  
Division of Reactor Projects

Docket Nos. 50-266; 50-301  
License Nos. DPR-24; DPR-27

Enclosure: Inspection Report 05000266/2011-010; 05000301/2011-010

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Letter to L. Meyer from M. Kunowski dated May 13, 2011

SUBJECT: POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2 – NRC TEMPORARY  
INSTRUCTION 2515/183 INSPECTION REPORT 05000266/2011-010;  
05000301/2011-010

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RidsNrrDirslrib Resource  
Cynthia Pederson  
Steven Orth  
Jared Heck  
Allan Barker  
Carole Ariano  
Linda Linn  
DRPIII  
DRSIII  
Patricia Buckley  
Tammy Tomczak  
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